

## **REMARKS**

The Office Action of September 23, 2009 and the final Office Action of June 19, 2009, and the references cited therein, have been carefully studied. Favorable reconsideration is requested in view of the foregoing amendments and the following remarks.

### **I. Claim Status and Amendments**

The filing of the RCE automatically enters the amendments in the After Final Amendment filed September 15, 2009.

Claims 1-4 are pending in this application and stand rejected. No claim has been allowed.

By way of the present amendment, Applicant has amended claim 1 to change “a crystallized saturated polyester resin layer [A]” to “a crystalline saturated polyester resin layer [A]” to correct a spelling error. This same revision has been made throughout the specification. One of ordinary skill in the art would understand that this change is being made to correct a typographical error and that, based on the disclosure and the examples, the term crystalline is an appropriate and accurate description of the subject matter of the application. No new matter has been added.

Claim 1 has been amended to specify the temperature and time of the heat treatment as “at 150° to 200° C for 1 to 30 minutes” as supported by the disclosure at page 11, lines 7-10. Claim 1 has also been amended to add the feature of “the crystalline saturated polyester resin layer [A] is substantially unoriented and uncrystallized before the heat treatment” as supported by the disclosure, for example, at page 9, lines 14-19. No new matter has been added.

In addition, Applicant has made minor editorial revisions to the claims to better conform to U.S. claim form and practice. Such revisions are non-substantive and not intended to

narrow the scope of protection. Such revisions include: revising the beginning of the claims to recite "A" or "The"; and revising the claim language to provide proper antecedent basis throughout the claims. In keeping with US law, the use of "a" or "an" in patent parlance carries the meaning of "one or more". Such revisions are unrelated to patentability. No new matter has been added.

Claims 1-4 will remain pending upon entry of this amendment, and these claims define patentable subject matter warranting their allowance for the reasons discussed herein.

## **II. Obviousness Rejection**

Claims 1-4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over JP 7-195618A (herein referred to as Toyo) in view of JP 05-269920 (herein referred to as Nippon) for the reasons set forth in item 3 on pages 2-3 of the final Office Action and the for reasons discussed on page 3 of the Advisory Action of September 23, 2009. The rejection is respectfully traversed. The arguments set forth in the after final response of September 15, 2009 are reiterated herein by reference.

The rejection should fall, because the cited prior art references fail to teach, suggest or make obvious all of the features of independent claim 1, as amended, as required to support a *prima facie* case of obviousness. Claim 1 is the sole independent claim in this application.

First, as noted above, main claim 1 has been amended to specify that "the crystalline saturated polyester resin layer [A] is substantially unoriented and uncrystallized before the heat treatment." Support can be found at page 9, lines 14-19. Applicant respectfully submits that the combination of Toyo and Nippon fail to disclose or suggest this feature. In point of fact, Nippon stands in contrast to this feature by disclosing biaxially oriented polyesters.

Second, claim 1, as amended, now specifies the temperature and time of the heat treatment. Specifically, claim 1 recites: “on a surface of the crystalline saturated polyester resin layer [A] is a highly crystallized layer (X) formed by a heat treatment at 150° to 200° C for 1 to 30 minutes of the resin-coated metal plate.” Support can be found at page 11, lines 7-19. Applicant respectfully submits that the combination of Toyo and Nippon fails to disclose or suggest this feature.

Accordingly, a highly crystallized layer (X) is formed by a heat treatment in the present application. Clearly, the highly crystallized layer (X) is spherocrystal, not "orientation crystal", because the heat treatment is different from orientation.

On the other hand, Nippon discloses “orientation crystal” on a surface (see paragraph [0034]) after applying the biaxially oriented polyesters and quenching.

On page 3, line3 of the Advisory Action, the examiner states that the quenching step is taught to induce non-orientation crystallization (0038), and that crystallinity results from the heat treatment taught in Nippon. Applicant respectfully disagrees and submits that Nippon fails to disclose or suggest that for which it is offered. Nippon teaches the quenching step not for non-orientation crystallization. Further Nippon teaches that the heating destroys all of orientation crystal unless quenching is not given within 20 seconds. See the machine translation of Nippon (JP05-269920) submitted with the last response. Again, as can be seen in this translation, Nippon discloses that “the orientation crystal of resin is destroyed by heating” and “the fall of orientation crystallinity are caused with the heat at the time of a lamination” (see paragraph [0036] in the specification of Nippon). Again, this is due to the resin film of Nippon being a “biaxially oriented film” (See paragraph [0036] in specification of Nippon). It is respectfully submitted that this

disclosure in Nippon teaches away from the use of heat treatment to achieve a “highly crystallized layer” device as in claim 1 of the instant application.

By contrast, in claim 1 of the instant application, the resin film is substantially unoriented and uncrystallized (see, lines 14-18, page 9 of the specification). Therefore, as set forth in the instant application and in claim 1, the heat treatment forms the highly crystallized layer (X) on a surface of the crystalline saturated polyester resin layer [A].

It is well established that a prior art reference must be considered in its entirety, *i.e.*, as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). M.P.E.P., Eighth Ed., Rev. 6 (September 2007) at § 2141.02, VI. It is also well established that a prior art reference that “teaches away” from the claimed invention is a significant factor to be considered in determining obviousness. M.P.E.P., Eighth Ed., Rev. 6 (September 2007) at § 2145, X, D, 1. Also, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. M.P.E.P., Eighth Ed., Rev. 6 (September 2007) at § 2143.01, V. Likewise, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); M.P.E.P., Eighth Ed., Rev. 6 (September 2007) at § 2143.01, VI.

Again, Nippon’s disclosure suggests that heat treatment would not achieve a highly crystallized layer as required in claim 1. Thus, Applicant submits that the combination of the teachings of Toyo and Nippon teaches away from each and every element of claim 1. As such, no

combination of Toyo and Nippon would predictability result in each and every element of claim 1.

For this reason, the obviousness rejection fails and should be withdrawn.

Lastly, the Examiner states in the Advisory Action that Applicant has previously argued the references individually. However, this is incorrect, because the previous response clearly addresses the combination of Toyo and Nippon.

In view of the above, claim 1 is believed to be novel and patentable over the combination of Toyo and Nippon. Claims 2-4 depend, either directly or indirectly, on claim 1. Accordingly, these dependent claims are also believed to be novel and patentable over Toyo and Nippon for the same reasons given their dependency on claim 1. Thus, withdrawal of the obviousness rejection over Toyo and Nippon is requested.

### **III. CONCLUSION**

Having addressed all the outstanding issues, this paper is believed to be fully responsive to the Office Action. Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections of record in view of the above amendment and remarks. It is believed that the claims are in condition for allowance. Favorable action is requested.

If the examiner has any comments or proposals for expediting prosecution, please  
contact the undersigned attorney at the telephone number below.

Respectfully submitted,

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